CLAIMS

1. A method to effectuate multiple transaction prices for a commodity, wherein transaction prices are always equal to the common prices submitted by both buyers and sellers, comprises the steps of:

(A) receiving a packet of trading requests that comprises at least one trading request, wherein a remote trader, though can optionally indicate a plurality of matching priority parameters, must indicate a commodity symbol, a price number, a buy or sell decision, and the quantity to be traded;

(B) generating a pairing element after validating each trading request of a packet and by attaching a sequence number to each validated trading request;

(C) pairing the pairing elements in a matching table, further comprising steps of:

(C1) sending a pairing element to a matching table according to the indicated commodity symbol and price number;

(C2) separating the pairing elements of the matching table into two sides, the buying side that contains pairing elements indicating a buy and the selling side that contains pairing elements indicating a sell; and

(C3) summing the submitted quantities of each side's pairing elements, comparing the two, and designating the side of a smaller sum as the short side, and the side of a larger sum as the long side;

(D) matching on each matching table pairing elements of the short side with the pairing elements of the long side, further comprising the steps of:

(D1) setting an initial matched quantity of each pairing element to be zero, and an initial unmatched quantity of each pairing element to be it's submitted quantity;

(D2) selecting by a default method a pairing element from the short side and identifying the matching priority parameter indicated, if any;

(D3) selecting from the long side the pairing element of the earliest request submission time if the short side pairing element indicates so or does not indicate any matching priority parameter, or selecting by a default method a pairing element from the subset of the long side's pairing elements whose account profiles contain the matching priority parameter indicated by the short side's pairing element;

(D4) matching the two pairing elements selected in (D2) and (D3) and setting new

matched and unmatched results;

(D5) repeating (D3) and (D4) for the next pairing element of the long side until the short side pairing element's matching opportunity is exhausted;

(D6) repeating from (D2) to (D5) until all short side pairing elements' matching opportunities are exhausted; and

(E) displaying the effectuated multiple transaction prices and corresponding matched and unmatched quantities in tabular data or charts, wherein the price distribution of a commodity and distributions of several market indices can be directly observed by remote traders.

2. The method of claim 1 wherein said steps (A) through (E) are preceded by a setup step of establishing an account profile database containing users' account information, a transaction price database containing a plurality of predetermined price numbers, a commodity symbol database containing a plurality of the symbols of predetermined trading commodities, a matching priority parameter database containing a plurality of predetermined matching priority parameters, and a matrix of matching tables indexed by predetermined price numbers and commodity symbols, wherein validated trading requests of same submitted price and commodity symbol are to be gathered and matched.

3. The method of claim 1 wherein said steps are conducted continuously or at regular time intervals.

4. The method of claim 2 wherein said matching priority parameters include, but not limited to, the request submission time, the submitted quantity, a settlement agency employed, a warehouse employed for delivery, or a distance between the remote trader and the exchange.

5. The method of claim 2 wherein said account profile includes but not limited to a user's identification, contact information, and other account information that may be also indicated as matching priority parameters, such as settlement agency employed as well as warehouse employed for delivery.

6. The method of claim 1 wherein said packet of trading requests of step (A) is sent to the exchange server through a communications network by a remote trader.

7. The method of claim 6 wherein said communications network includes the World Wide Web, the Wireless Application Protocol, Internet, Local Area Network, or a proprietary network.

8. The method of claim 1 wherein said step (A) for receiving trading requests from a remote trader further comprises the step of authenticating the remote trader's

identification and password.

9. The method of claim 1 wherein said step (A) for receiving trading requests from a remote trader further comprises the step of assigning the receiving time as the request submission time of the trading requests.

10. The method of claim 1 wherein said default method of (D2) includes a selection by request submission time or random drawing.

11. The method of claim 1 wherein said default method of (D3) includes a selection by request submission time or random drawing.

12. The method of claim 1 wherein said matched and unmatched results of step (D4) are stored in the matched result database and the unmatched result database, respectively.

13. The method of claim 1 wherein said tabular data or charts of step (E) convey a remote trader's own trading information including the content of his/her trading requests, matched results, and unmatched results.

14. The method of claim 1 wherein said tabular data or charts of step (E) convey also the latest trading information of a commodity that contains at least the effectuated transaction prices, and the corresponding total matched as well as unmatched quantities.

15. The method of claim 1 wherein said tabular data or charts of step (E) further conveys trading information of various groups of commodities and the aggregate market as represented by several trading indices.

16. The method of claim 1 wherein said tabular data or charts of step (E) are sent to remote traders automatically or after receiving an inquiry of trading information.

17. A system to effectuate multiple transaction prices for a commodity, wherein transaction prices are always equal to the common prices submitted by both buyers and sellers, comprises an exchange server coupled to a plurality of trader terminals over a communications network, the exchange server further comprising:

means for generating a packet of trading requests for a remote trader to submit relevant trading information,

means for receiving a packet of trading requests or an inquiry of trading information,

means for generating pairing elements from trading requests,

means for generating a matrix of matching tables to match pairing elements,

means for determining the short side and the long side of a matching table,

means for matching a pairing element of the short side with a pairing element of the long side,

means for calculating matched quantities and unmatched quantities,

means for displaying trading information in tabular data or charts that enable direct observation of discrete price distributions,

means for sending trading information to remote traders, and

means for the storage of various software programs and databases.

18. The system of claim 17 wherein said communications network includes the World Wide Web, Wireless, Application Protocol, Internet, Local Area Network, or a proprietary network.

19. The system of claim 17 wherein said means for receiving a packet of trading requests or an inquiry of trading information is further for authenticating the identification of a remote trader and assigning the receiving time as the request submission time of the trading requests.

20. The system of claim 17 wherein said packet of trading requests comprises at least one trading request on which a remote trader, though can optionally indicate a plurality of matching priority parameters, must indicate at least a commodity symbol, a transaction price, a decision to buy or sell, and the quantity to be traded.

21. The system of claim 20 wherein said matching priority parameters include, but not limited to, the request submission time, the trading quantity, a settlement agency employed, a warehouse for delivery, or the distance between the remote trader and the exchange server.

22. The system of claim 17 wherein said means for generating pairing elements from trading requests is further for validating each trading request and attaching it with a sequence number.

23. The system of claim 17 wherein said means for determining the short side and the long side of a matching table further comprises means for comparing the sum of all pairing elements indicating a buy decision with the sum of all pairing elements indicating a sell decision.

24. The system of claim 17 wherein said means for matching a pairing element of the short side with a pairing element of the long side further comprises:

means for selecting said pairing element of the short side based on request submission time or random drawing,

means for selecting said pairing element of the long side based on request submission time, when said short side paring element indicates so or does not indicate any matching priority parameter, and,

means for selecting said pairing element of the long side based on request submission time or random drawing when said short side pairing element indicates at least a matching priority parameter, the means further comprising:

means for finding a subset of the long side pairing elements whose account profiles contain the matching priority parameter indicated in said short side pairing element.

25. The system of claim 17 wherein said means for calculating matched quantities and unmatched quantities further comprises means for determining if a pairing element's matching opportunity is exhausted.

26. The system of claim 25 wherein said pairing element's matching opportunity is exhausted when its unmatched quantity reaches zero or falls below a minimum lot size.

27. The system of claim 17 wherein said tabular data or charts convey a remote trader's own trading information including the content of his/her trading requests, matched results, and unmatched results; the trading information of a commodity including the effectuated transaction prices, and the corresponding total matched as well as unmatched quantities; and the trading information of various groups of commodities as well as the aggregate market as represented by several trading indices.

28. The system of claim 17 wherein said trading information is sent to remote traders automatically or after receiving an inquiry.

29. The system of claim 17 wherein said databases comprise an account profile database containing users' account information, a transaction price database containing a plurality of predetermined price numbers, a commodity symbol database containing a plurality of the symbols of predetermined trading commodities, a matching priority parameter database containing a plurality of predetermined matching priority parameters, matched result database, and unmatched result database.